Remarks

Applicants thank the Examiner for the Office action dated October 31, 2007. Applicants respectfully traverse the rejection, but make amendments in order to expedite prosecution.

The Examiner admits that Pino does not include simulation of time-domain signals, but then simply finds that Li discusses time-domain signals. (Office action, page 4). The Examiner then concludes that it would have been obvious to modify Pino with the teachings of Li. (Office action, page 4). Applicant's representative submits that such a combination would require removing all of the digital analysis of Pino and plugging in time-domain analysis of Li. Therefore, Applicant's representative submits such a combination would be difficult to successfully achieve. Thus, the Examiner's rejection appears to be well short of a sufficient rejection under the current obviousness standard. In particular, MPEP 2143.02 states that "a rational to support a conclusion that a claim would have been obvious is that...one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art."

Pino introduces the concept of "timed synchronous dataflow" (TSDF), which allows for "synchronous DSP portions [to] be cosimulated with the analog RF portions of the design." (Page 1710, second column, second paragraph). It appears that TSDF extends SDF by adding a "timed data type that can represent a signal as an envelope and carrier frequency." (Page 1711, section 3). "TSDF makes a distinction between timed and numeric actors" and "defines that timed data tokens produced from a timed actor are equally spaced in time." (Page 1712, first column). Applicant's representative submits that one of ordinary skill could not have plugged the analog analysis of Li (which computes signal propagation of a signal path) into the complex TSDF of Pino. Indeed, such a combination

seems to contradict the very purpose of Pino, which is to integrate DSP and RF. (Page 1710, first column).

Accordingly, there is no reasonable expectation of success that Pino could be modified by Li in the manner proposed by the Examiner. See MPEP 2143.02 ("Reasonable expectation of success is required.")

Nonetheless, Applicants are amending the claims solely in the interest of expediting prosecution. In particular, claim 1 has been amended to require "solving two sets of equations until convergence including a first set of non-linear equations related to the time-domain signals and a second set of non-linear equations related to the time-frequency domain signals." Support for this amendment is clearly shown in Figure 3 at boxes 58, 60 and the accompanying discussion at page 6, line 10 through page 7, line 22.

Pino focuses on DSP and RF, which leads Pino to the approach of extending TSDF. There is no suggestion or motivation in Pino to solve "two sets of equations until convergence" where one set relates to "time-domain signals" and the second set to "time-frequency domain" signals, as stated in claim 1.

Li also does not attempt to solve two sets of equations as described above. Instead, Li computes signal propagation along a signal path by creating a signal flow graph. (See pages 845 and 846, section 3.5). Applicant's representative submits that the signal flow graph is converted into a single equation and convergence is achieved using that equation. (Pages 845-846, section 3.5). Li does not disclose or suggest having two sets of non-linear equations, one related to "time domain" signals and the other related to "frequency domain" signals that are solved as required by claim 1.

If the Examiner disagrees and still believes that Li can somehow be combined with Pino,

Applicant respectfully requests that the Examiner provide specific details about how Pino's TSDF system could be applied with the signal propagation techniques of Li to arrive at the method of claim 1.

Claims 11 and 17 have been amended to overcome the Examiner's rejection under 35 U.S.C. § 103. In particular, claim 11 requires "solving...a first set of non-linear equations...and a second set of non-linear equations...so that solutions of the first set of equations affect solutions of the second set of equations and vice versa." Neither Pino nor Li suggest or disclose such a limitation. Likewise, claim 17 requires "two sets of equations and solving the two sets in an interrelated manner until convergence." Neither Pino nor Li suggest or disclose this limitation.

The remaining claims are dependent and should be allowed for the reasons stated above.

Regarding the rejection under 35 USC § 101, Applicants have amended the claim 11 to include similar limitations to claim 1. Claim 11 is directed to a machine, i.e., a simulator, which is clearly statutory matter. Therefore, the rejection of claim 11 is traversed.

Applicants believe that application is in condition for allowance. Should the Examiner disagree, please call the undersigned at the number listed below in order to expedite prosecution of the present matter.

Respectfully submitted,

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